

IN THE CLAIMS

Please amend and consider the claims as follows:

1. (Currently Amended) A circuit reduction method, comprising:

inputting information about an original circuit structure;

~~using a resistive degree of~~ selectively sorting at least one node in the

original circuit structure ~~to selectively sort~~ dependent on a resistive

degree of the at least one node;

dependent on the selectively sorting, determining at least one time

constant of the ~~original circuit~~ at least one node;

sorting the at least one time constant; and

~~determining whether to remove a loop in the original circuit structure~~

~~based on the sorted at least one time constant and the sorted at least~~

~~one node~~ maintaining the at least one time constant from

substantially all directions of the at least one node by redistributing

at least one of a resistance and a ground capacitance, wherein the

redistributing comprises eliminating another node having an

insignificant characteristic time constant based on a local circuit

transformation.
2. (Original) The circuit reduction method of claim 1, further comprising
preprocessing the original circuit structure.
3. (Original) The circuit reduction method of claim 1, further comprising selectively

choosing the at least one node as a node to be reduced.

4. (Currently Amended) The circuit reduction method of claim 1, further comprising:
 - determining another time constant of the original circuit after ~~the loop has~~
~~been removed from the original circuit structure~~ redistributing;
 - sorting the another time constant; and
 - determining whether to remove ~~another~~ loop in the original circuit
structure based on the sorted another time constant and the sorted
at least one node.
5. (Original) The circuit reduction method of claim 1, further comprising removing a
loop that is not present in the original circuit structure but is present in an
extraction of the original circuit structure.
6. (Cancelled)
7. (Cancelled)
8. (Currently Amended) The circuit reduction method of claim 1, ~~further comprising~~
~~maintaining an Elmore time constant from directions around~~ wherein the at least
one node is an Elmore time constant.

9. (Currently Amended) A computer-readable medium having recorded therein instructions executable by processing, the instructions for:

~~using a resistive degree of~~ selectively sorting at least one node in the original circuit structure ~~to selectively sort~~ dependent on a resistive degree of the at least one node;

dependent on the selectively sorting, determining at least one time constant of the ~~original circuit~~ at least one node;

sorting the at least one time constant; and

~~determining whether to remove a loop in the original circuit structure based on the sorted at least one time constant and the sorted at least one node~~ maintaining the at least one time constant from substantially all directions of the at least one node by redistributing at least one of a resistance and a ground capacitance, wherein the redistributing comprises eliminating another node having an insignificant characteristic time constant based on a local circuit transformation.

10. (Original) The computer-readable medium of claim 9, further comprising preprocessing the original circuit structure.
11. (Original) The computer-readable medium of claim 9, further comprising selectively choosing the at least one node as a node to be reduced.

12. (Currently Amended) The computer-readable medium of claim 9, further comprising:
 - determining another time constant of the original circuit after ~~the loop has been removed from the original circuit structure~~ redistributing;
 - sorting the another time constant; and
 - determining whether to remove ~~another~~ loop in the original circuit structure based on the sorted another time constant and the sorted at least one node.
13. (Original) The computer-readable medium of claim 9, further comprising removing a loop that is not present in the original circuit structure but is present in an extraction of the original circuit structure.
14. (Cancelled)
15. (Cancelled)
16. (Currently Amended) The computer-readable medium of claim 9, ~~further comprising maintaining an Elmore time constant from directions around~~ wherein the at least one node is an Elmore time constant.
17. (Currently Amended) A computer system, comprising:
 - a processor;

a memory; and

instructions, residing in the memory and executable by the processor, for:

~~using a resistive degree of~~ selectively sorting at least one node in
the original circuit structure ~~to selectively sort~~ dependent
on a resistive degree of the at least one node;

dependent on the selectively sorting, determining at least one time
constant of the ~~original circuit~~ at least one node;

sorting the at least one time constant; and

~~determining whether to remove a loop in the original circuit~~
~~structure based on the sorted at least one time constant and~~
~~the sorted at least one node~~ maintaining the at least one
time constant from substantially all directions of the at least
one node by redistributing at least one of a resistance and a
ground capacitance, wherein the redistributing comprises
eliminating another node having an insignificant
characteristic time constant based on a local circuit
transformation.

18. (Original) The computer system of claim 17, further comprising instructions for preprocessing the original circuit structure.
19. (Original) The computer system of claim 17, further comprising instructions for selectively choosing the at least one node as a node to be reduced.

20. (Currently Amended) The computer system of claim 17, further comprising instructions for:

determining another time constant of the original circuit after ~~the loop has been removed from the original circuit structure~~ redistributing;
sorting the another time constant; and
determining whether to remove ~~another~~ loop in the original circuit structure based on the sorted another time constant and the sorted at least one node.

21. (Original) The computer system of claim 17, further comprising instructions for removing a loop that is not present in the original circuit structure but is present in an extraction of the original circuit structure.

22. (Cancelled)

23. (Cancelled)

24. (Currently Amended) The computer system of claim 17, ~~further comprising maintaining an Elmore time constant from directions around~~ wherein the at least one node is an Elmore time constant.